

Application No. 10/805,619
Response to Office Action

Customer No. 01933

Listing of Claims:

1. (Currently Amended) An air conditioning apparatus for a hydraulic shovel, which is placed in a cab of the hydraulic shovel, said apparatus comprising:

5 ~~wherein~~ an air-conditioning unit which cools air and which is placed as a whole at a front portion of a right side in said cab.

2. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 1, wherein said air-conditioning unit constitutes a part of a surface of a right side wall ~~surface~~ of said cab.

3. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 2, wherein said air-conditioning unit is mounted to said right side wall ~~surface~~ to be ~~capable of being taken in and out~~ removable from ~~an~~ both inside and ~~an~~ outside of said cab.

4. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 2, wherein said air-conditioning unit comprises pipe connecting portions ~~of said~~

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~~air-conditioning unit~~ are provided at a region thereof exposed to an outside of said cab.

5. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 2, wherein said air-conditioning unit has an inclined shape ~~in which~~ such that an upper portion thereof at a front side of ~~a vehicle~~ the hydraulic shovel is inclined downward ~~to a~~ toward the front side.

6. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 2, further comprising:
~~wherein said air-conditioning apparatus comprises said~~
~~air-conditioning unit and an air-conditioning cover; and~~

5 wherein said air-conditioning cover has an inclined shape ~~in~~ which such that an upper portion thereof at a front side of ~~a vehicle~~ the hydraulic shovel is inclined downward ~~to a~~ toward the front side.

7. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 2, ~~wherein~~ further comprising an internal cover, which is put on said air-conditioning unit, ~~is provided with~~ and which comprises ducts for distributing the air blown from said air-conditioning unit.

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8. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 2, ~~wherein further comprising~~ a vent hole through which outside air is introduced into said air-conditioning unit, and which is provided at an upper region ~~from of said right side wall above~~ an external cover for covering tanks of the hydraulic shovel including at least a working fluid tank ~~, on said right side wall surface.~~

Claim 9 (Canceled).

10. (Currently Amended) ~~The~~ An air conditioning apparatus for ~~the a~~ hydraulic shovel ~~according to Claim 9, wherein said~~ which is placed in a cab of the hydraulic shovel, said apparatus comprising:

an air-conditioning unit constitute which is mounted to a front portion of a right side wall of said cab so as to constitute a part of a surface of said right side wall surface.

11. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 10, wherein said air-conditioning unit is mounted to said right side wall ~~surface~~ to be ~~capable of being taken in and out~~ removable from ~~an~~ both inside and ~~an~~ outside of said cab.

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12. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 10, wherein said air-conditioning unit comprises pipe connecting portions ~~of said air-conditioning unit~~ are provided at a region thereof exposed to an outside of said cab.

13. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 10, wherein said air-conditioning unit has an inclined shape ~~in which~~ such that an upper portion thereof at a front side of ~~a vehicle~~ the hydraulic shovel is inclined downward ~~to a~~ toward the front side.

14. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 10, further comprising:
~~wherein said air conditioning apparatus comprises said air-conditioning unit and an air-conditioning cover; and~~

5 wherein said air-conditioning cover has an inclined shape ~~in~~ which such that an upper portion thereof at a front side of ~~a vehicle~~ the hydraulic shovel is inclined downward ~~to a~~ toward the front side.

15. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 10, wherein further comprising an internal cover, which is put on said

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air-conditioning unit, ~~is provided with~~ and which comprises ducts for distributing the air blown from said air-conditioning unit.

16. (Currently Amended) The air conditioning apparatus for the hydraulic shovel according to Claim 10, ~~wherein~~ further comprising a vent hole through which outside air is introduced into said air-conditioning unit, and which is provided at an upper region ~~from of said right side wall above~~ an external cover for covering tanks of the hydraulic shovel including at least a working fluid tank ~~, on said right side wall surface.~~

17. (New) An air-conditioning apparatus for a cab of a construction vehicle, said apparatus comprising:

an air-conditioning unit mounted to a right wall of the cab at a front portion thereof;

an internal cover that covers the air-conditioning unit in an interior of the cab; and

an outside air duct through which air is introduced from outside of the cab through the right wall.

18. (New) The air-conditioning apparatus according to claim 17, wherein the air-conditioning unit constitutes a part of a surface of the right wall of the cab.

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19. (New) The air-conditioning apparatus according to claim 17, wherein the air-conditioning unit is mounted to the right wall to be removable from both inside and outside of the cab.

20. (New) The air-conditioning apparatus according to claim 17, wherein the air-conditioning unit comprises pipe connecting portions provided at a region thereof exposed to outside of the cab.

21. (New) The air-conditioning apparatus according to claim 17, wherein the cover has an inclined shape such that an upper portion thereof at a front side of the vehicle is inclined downward toward the front side.

22. (New) The air-conditioning apparatus according to claim 17, wherein the cover comprises ducts for distributing air blown from the air-conditioning unit.

23. (New) The air-conditioning apparatus according to claim 17, wherein a vent hole through which the outside air is introduced through the outside air vent is provided at an upper region of the right wall above an external cover for covering tanks of the vehicle including at least a working fluid tank.

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24. (New) The air-conditioning apparatus according to claim 17, wherein the air-conditioning unit comprises a heat exchange chamber at a front portion thereof and an outside air introduction chamber at a rear portion thereof;

5 wherein the outside air introduction chamber is separated from the heat exchange chamber by a partition wall, and the outside air introduction chamber communicates with the heat exchange chamber through a hole in the partition wall.

25. (New) The air-conditioning apparatus according to claim 24, further comprising an interior air introduction hole formed in a side surface of the heat exchange unit, wherein air from inside the cab is introduced to the air-conditioning unit through the interior air introduction hole.

26. (New) The air-conditioning apparatus according to claim 17, wherein the outside air duct is coupled to an outside air duct placement portion of the internal cover.

27. (New) The air-conditioning apparatus according to claim 17, wherein the air-conditioning unit is mounted in a mounting hole extending through a wall plate of the right wall of the cab.

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28. (New) An air-conditioning apparatus for a cab of a construction vehicle, said apparatus comprising:

an air-conditioning unit positioned at a front portion of a right side of the cab such that the air-conditioning unit
5 constitutes a part of a surface of a right wall of the cab;

wherein a vent hole through which outside air is introduced into said air-conditioning unit is provided at an upper region of the right wall of the cab above an external cover for covering tanks of the vehicle including at least a working fluid tank.

29. (New) The air-conditioning apparatus according to claim 28, wherein the air-conditioning unit is mounted to the right wall to be removable from both inside and outside of the cab.

30. (New) The air-conditioning apparatus according to claim 28, wherein the air-conditioning unit comprises pipe connecting portions provided at a region thereof exposed to outside of the cab.

31. (New) The air-conditioning apparatus according to claim 28, wherein the air-conditioning unit has an inclined shape such that an upper portion thereof at a front side of the vehicle is inclined downward toward the front side.

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32. (New) The air-conditioning apparatus according to claim 28, further comprising an air-conditioning unit cover, which has an inclined shape such that an upper portion thereof at a front side of the vehicle is inclined downward toward the front side.

33. (New) The air-conditioning apparatus according to claim 28, further comprising an internal cover for the air-condition unit, wherein the internal cover comprises ducts for distributing air blown from the air-conditioning unit.